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SUPPORTING POSITIVE SIBLING RELATIONSHIPS DURING CHILDHOOD

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This paper reviews the research literature focusing on the interpersonal relationships between siblings when one child has a disability. Descriptive findings are presented that compare and contrast sibling warmth and positivity, engagement, and conflict in sibling pairs with and without a child with a disability. The social roles assumed by siblings are examined, as are developmental changes in role relationships. Research on the development of the sibling relationship in the family context is reviewed, as are findings concerning the effects of parent differential attention on the quality of the sibling relationship. © 2001 Wiley-Liss, Inc.
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The relationship between siblings has long been the topic of novels, movies, biographies, and even fairy tales. Popular culture recognizes the importance of brothers and sisters in the lives of children. After many years of neglect, researchers are dramatically increasing their efforts toward understanding sibling relations. These efforts include a focus on understanding relationships between children with disabilities and their siblings. This paper provides a review of the current state of knowledge about relationships between siblings when one child has a disability. This review focuses on research that addresses the positive and negative aspects of the interpersonal relationships between siblings. In general, it does not address the body of literature focusing on sibling mental health, personality, or psychosocial outcomes (although some of this literature is presented to highlight key points).

The initial section of the review presents the limited body of research that has focused on the processes of becoming a sibling when a child with a disability is born into the family. This is followed by a review of what is known about important aspects of sibling relations when one child has a disability, namely, sibling warmth and positivity, engagement, conflict, and role relationships. The final sections address research findings related to the development of the sibling relationship within the family context, including a discussion of the effects of parental differential treatment on the sibling relationship.

BECOMING SIBLINGS

In families of typically developing children, the relationship between children and their parents changes as parents cope with the needs and demands of a new baby [Stewart, 1990; Teti et al., 1996]. Older siblings often experience a decrease in positive maternal attention and communication after the baby is born [Dunn and Kendrick, 1980]. Gath [1978] conducted a longitudinal study of this sibling transitional period in English families who gave birth to a child with Down syndrome and a group of comparison families. Mothers of nondisabled infants reported that they decreased the time that they spent with their older children over the two-year course of the study. Mothers of infants with Down syndrome, on the other hand, were more likely not to have changed the amount of time given to older children in the family. These mothers reported that they continued to pay attention to their nondisabled children even when confronted by the care demands of a new baby. Fathers in both groups were stable across time in the amount of time that they spent with older siblings.

Gath [1978] found that parents usually did not immediately talk with their nondisabled children about the diagnosis of Down syndrome in a sibling. They generally gauged the children's developmental level and tried to explain the disability to siblings when the parents believed that they were old enough to understand. Most parents reported that the siblings showed little reaction to the information. A few siblings showed distress or refused to believe the diagnosis. Only a small number of parents said nothing to siblings about the child's diagnosis. The entry of an infant into the family is an important event for the other children in the family [Stewart, 1990], but there is much yet to be learned about this transition in families of children with disabilities.

DEVELOPMENT OF WARM, POSITIVE SIBLING RELATIONSHIPS

It is the hope of most parents that their children will like each other, will enjoy playing and interacting together, and will form warm relationships that last into adulthood. Siblings can be an important source of support to each other throughout life. Numerous researchers have found that the relationship between children with disabilities and their siblings is usually very positive [Graliker et al., 1962; Carr, 1973, 1985; Gath, 1973; McHale et al., 1986; Abramovitch et al., 1987; Stoneman et al., 1987, 1989; Byrne et al., 1988; McHale and Gamble, 1989; Bägenholm and Gillberg, 1991; Brody et al., 1991; Roeyers and Mycke, 1995; Fisman et al., 1996]. This has been found from early childhood

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through adolescence. Siblings of children with severe disabilities have reported that they have fun playing with their siblings, feel strong loyalty, interact with their siblings on a daily basis, and are aware of the children's activities and developmental gains [Wilson et al., 1989]. Carr [1995] and Byrne et al. [1988] found that the quality of relationships between children with Down syndrome and their siblings grew more positive over the period of childhood.

There have been efforts to discover whether the relationships between children with disabilities and their siblings are similar in warmth and positivity to relationships between typically developing siblings. Generally, researchers have hypothesized that when one child has a disability, the sibling relationship would be less warm and positive. Surprisingly, the majority of studies have found the opposite pattern. Sibling relationships involving a child with a disability have been found to be more positive than those between comparison sibling pairs [Abramovitch et al., 1987; Byrne et al., 1988; McHale and Gamble, 1989; Lobato et al., 1991; Gargiulo et al., 1992; Roeyers and Mycke, 1995; Fisman et al., 1996; Purcell and Floyd, 1999; Cuskelly and Gunn, 2000]. These unexpected findings have emerged across different data sources, including observations of sibling interactions [Abramovitch et al., 1987; Lobato et al., 1991], reports of parents [Byrne et al., 1988; McHale and Gamble, 1989], and reports of siblings [McHale and Gamble, 1989; Gargiulo et al., 1992; Roeyers and Mycke, 1995; Fisman et al., 1996; Purcell and Floyd, 1999; Cuskelly and Gunn, 2000].

Abramovitch et al. [1987] and Lobato et al. [1991] observed preschool sibling pairs containing a child with a disability and found that their interactions were more prosocial and nurturing than interactions between comparison siblings. McHale and Gamble [1989] obtained both mother and typical sibling reports of the quality of the sibling relationship. Mothers and typically developing siblings rated sibling interactions involving children with mental retardation as being higher in warmth than those of comparison siblings. In addition, siblings reported being happier with their sibling relationships when their siblings had mental retardation than when their siblings were typically developing. Fisman et al. [1996], in a Canadian study, found that school-age siblings of children with Down syndrome and pervasive developmental disorder (PDD) reported greater warmth in their sibling relationships than did comparison siblings.

Roeyers and Mycke [1995] reported parallel findings for siblings of children with autism, as did Cuskelly and Gunn [2000] for an Australian sample of siblings of children with Down syndrome, and Purcell and Floyd [1999] for siblings of children with mental retardation. Similar findings were reported by Gargiulo et al. [1992], using sibling ratings of the sibling relationship, but the pattern of findings in this study differed somewhat depending on whether the children had a visible or invisible disability, and whether the children's mental retardation was congenital or acquired. Other studies [Stoneman et al., 1987, 1989; Brody et al., 1991] have not found differences in observed positivity between school-aged sibling pairs with and without a child with mental retardation. Even though the findings are somewhat mixed, the majority of studies suggest that sibling relationships between children and their brothers and sisters with disabilities may be more positive and nurturing than relationships between comparison siblings.

There is evidence to suggest that as the competencies of children with disabilities decrease, it is more difficult for them to engage their siblings in joint interaction.

SIBLING ENGAGEMENT

In addition to studying warmth and positivity, it is possible to examine the quality of sibling relationships by determining the amount of time that siblings choose to spend together. It might be assumed that if siblings enjoy each other's company and have a close, warm relationship, they will spend large amounts of time playing and interacting with each other. Conversely, if the relationship between siblings is effectively neutral or disengaged, the siblings might be expected to avoid spending time together. In general, researchers have found a high level of interaction between siblings when one child has a disability [Abramovitch et al., 1987; Stoneman et al., 1987, 1988; McHale and Gamble, 1989; Brody et al., 1991; Lobato et al., 1991]. McHale and Gamble [1989] found that regardless of whether a sibling had a disability, school-aged siblings reported engaging in approximately five joint activities per day, lasting for a total of 2.5 to 3 hr.

Several observational studies have found that siblings of children with disabilities and comparison siblings are similar in the amount of time that they spend interacting together [Abramovitch et al., 1987; Stoneman et al., 1987; Brody et al., 1991; Lobato et al., 1991]. Bägenholm and Gillberg [1991] found that siblings of children with mental retardation reported playing with their siblings more frequently than did comparison siblings. A different set of findings has emerged for siblings of children with autism. Children with autism and their siblings have been found to spend less time interacting together than typical siblings or siblings of children with Down syndrome [Knott et al., 1995; Strain and Danko, 1995]. Siblings in dyads with a child with autism produce a more limited range of social bids and respond less frequently to each other than children in dyads with a sibling with Down syndrome [Knott et al., 1995]. Similar findings have emerged for siblings of children with physical disabilities. Dallas et al. [1993a], studying a Greek sample, found that siblings with cerebral palsy are less engaged play partners than comparison siblings, engaging in solitary activity rather than playing jointly with their siblings.

Sibling interactions involving children with disabilities evidence more variability across sibling pairs than do interactions involving comparison siblings [McHale et al., 1986]. There is evidence to suggest that as the competencies of children with disabilities decrease, it is more difficult for them to engage their siblings in joint interaction. The more severe the skill deficit experienced by these children, the larger are the discrepancies between their play levels and those of their siblings and the harder these discrepancies appear to be for the children to overcome. Dallas et al. [1993a] found that among siblings of children with cerebral palsy, engagement decreased as severity of disability increased. Mothers have reported that when siblings do not play together, it is because the children with Down syndrome don't understand the rules of a game or disrupt the play [Byrne et al., 1988]. Stoneman et al. [1987] found that during naturalistic in

home observations, children with more advanced adaptive competencies engaged in less solitary activity, spent a greater proportion of their family interactions with their siblings, and were playmates with siblings more often than less adaptively skilled children.

In a small in-home naturalistic study of four children with severe mental retardation [Stoneman and Brody, 1984], very low rates of sibling interaction were found. Three of the four children used adaptive chairs, making access to play materials difficult. These three children never played with their siblings with toys or other play materials during the two-hour observation period. They engaged in solitary activity, often watching what was going on around them. When typically developing siblings were asked what activities they liked to engage in with their brothers and sisters, they mentioned pushing the child's wheelchair, whispering, doing funny or entertaining things so that the siblings could watch, and stretching the siblings' arms and legs.

Sibling interactions differ across activity contexts. Stoneman et al. [1989] compared sibling interactions during three activities: sharing a snack, playing with toys, and watching television. During the snack and television activities, sibling pairs that included a younger sibling with mental retardation interacted more with each other than did comparison siblings. When the children were playing with toys, however, the pattern reversed. During toy play, comparison siblings were more interactive than sibling pairs with a child with mental retardation. Brody et al. [1991] reported similar findings across the same three activity contexts for a group of siblings in which the child with mental retardation was the older sibling. The authors concluded that the limited ability of children with mental retardation to engage their siblings in prolonged sequences of joint play limited interaction and encouraged solitary activity in the toy play context.

During naturalistic in-home observations, older siblings of children with mental retardation seemed to compensate for their siblings' limited skills by selecting activities in which they could easily participate [Stoneman et al., 1987]. The amount of interaction between siblings of children with mental retardation and comparison siblings was similar, but the comparison siblings were more likely to engage in joint play involving toys and other play materials. Sibling pairs with a child with mental retardation, on the other hand, were more likely to engage each other in social or noncompetitive physical activities not involving play materials. These activities, such as tickling or rough-and-tumble play, allowed the children with mental retardation to fully participate in the activity, not limited by their lesser play competencies. These findings were especially striking for girls: 40% of the interactions between sisters when one girl had mental retardation were during noncompetitive physical activities, while only 5% of the interactions between comparison sisters were of this type. Lobato et al. [1991] reported similar findings in their observational study of preschool siblings. They found no differences in the overall amount of interaction between siblings of children with disabilities and comparison siblings, but siblings of children with disabilities were more likely to engage in parallel and social play (not involving toys, i.e. wrestling).

Numerous intervention strategies have been developed to increase the social interactions between siblings when those interactions either do not occur or do not occur frequently. Powell et al. [1983], for example, increased interactions between children with mental retardation and their siblings by teaching parents to increase their use of prompting and praise, as well as giving parents information about appropriate selection of social toys and arrangement of the play environment. Strain and Danko [1995] taught parents a set of prompts and play organizing skills, resulting in increased interactions between children with autism and their siblings. Parents reported that they enjoyed the intervention, thought that the children enjoyed it, and intended to continue using the strategies after data collection ended. Others have intervened directly with the child with a disability. Belchic and Harris [1994] taught social skills to children with autism in a preschool setting and found that the children generalized the skills to in home interactions with siblings, resulting in increased sibling play initiations. Taylor et al. [1999] used video modeling to increase play-related comments made by children with autism toward their siblings.

Typically developing siblings have also been the targets of interventions. James and Egel [1986] taught interactional strategies to nondisabled preschool-aged siblings, and Clark et al. [1989] used a small group format to teach interactional skills to siblings of children with autism, increasing interaction and sibling communication. Celiberti and Harris [1993] taught siblings to use prompts, praise, and initiation strategies, resulting in increased play interactions with their siblings with autism. The typically developing siblings expressed increased comfort in interacting with their siblings and decreased frustration with sibling negative behavior.

SIBLING CONFLICT

While siblings often share one of the most rewarding human bonds, relationships between siblings can be troubled and characterized by dislike, mistrust, and negative feelings. Sibling conflict is not the polar opposite of sibling warmth and closeness. Rather, these two aspects of the sibling relationship have been found to be relatively independent of each other [Furman and Buhrmester, 1985]. Conflict between siblings can be extremely disruptive to families and distressing to parents. Several researchers have examined the degree of conflict between children with disabilities and their siblings, with mixed findings. Mash and Johnson [1983] found that children with hyperactivity have more conflicted sibling relationships than comparison siblings. Other researchers have found no differences in observed conflict between siblings of children with mental retardation and comparison siblings [Abramovitch et al., 1987; Stoneman et al., 1987, 1989; Brody et al., 1991]. Although sibling pairs containing a child with mental retardation did not differ from comparison siblings in their expression of negative affect, wide variability existed within these groups of children. Some siblings in both groups experienced high levels of conflict and negativity. In one study [Stoneman et al., 1989], younger siblings with mental retardation were found to be more negative toward their older brothers and sisters than comparison siblings, but the older typically developing siblings did not reciprocate these negatives.

Other researchers have found sibling relationships to be less conflicted when one child has a disability. Carr [1995], in her longitudinal study of families of children with Down syndrome living in England, found that quarrels and "personality clashes" between siblings occurred less often when one of the siblings had Down syndrome than in comparison siblings. She attributed this to the widening gap in interests and abilities between the children with Down syndrome and their siblings. McHale and Gamble [1989] found that sibling pairs including a child with mental retardation were rated by mothers and by typically developing siblings as exhibiting less physical aggression than comparison sib-

lings. They also found that children with disabilities teased or irritated their siblings less than comparison siblings. Similarly, Purcell and Floyd [1999] and Fisman et al. [1996] found that siblings of children with Down syndrome, mental retardation, and PDD reported less conflict in their relationships than did comparison siblings. Wilson et al. [1989] interviewed older siblings of children with severe disabilities. These children reported that their anger at the misbehavior of their siblings with disabilities was mediated by the belief that it was not maliciously intended. More than a third of the older siblings said that they responded to their own anger at their siblings with disabilities with feelings of guilt.

The inconsistent pattern of research findings suggests that the issue of sibling conflict is quite complex. It is probable that conflict varies among children with different disabilities and different temperaments. It is also probable that characteristics of the family context and different parenting behaviors strongly relate to negativity and conflict among children in the family. For those families experiencing high rates of sibling conflict, the heightened family discord can be troubling and stressful. One study has addressed the efficacy of an intervention focused on sibling conflict. Koegel et al. [1998] successfully used an individually determined set of strategies, including environmental modifications, communication training, and contingent attention for appropriate behavior, to reduce the aggressive behaviors of children with autism toward infant or toddler siblings.

SIBLING ROLE RELATIONSHIPS

For over 40 years, researchers have been interested in the role relationships between siblings when one child has a disability [i.e., Farber, 1959, 1960; Farber and Jenne, 1963; Stoneman and Brody, 1982]. This approach borrowed heavily from the work of classic role theorists such as Bates and Sarbin [Sarbin, 1954; Bates, 1956]. Roles can be thought about as being patterns of behavior that have social meaning. Roles provide order and predictability to social interactions. Family members, including children, enact roles that serve to define their positions and responsibilities within the family system [Stoneman, 1995].

Siblings experiment with roles and create novel ways of interacting that meet the needs and desires of both social participants. Through trial and error, and informed by social feedback, children create reciprocal roles that define power relationships and facilitate mutually enjoyable social exchanges. Play forms a prime social context in which role relationships are negotiated and refined [Stoneman and Brody, 1982]. Play allows children to practice known roles and to experiment with new ones. Through their ongoing interactions with a sibling with a disability, typically developing siblings who develop high-quality sibling relationships are able to negotiate role relationships that accommodate their siblings' disabilities and facilitate social interaction.

In addition to roles spontaneously enacted by children, parents informally communicate role expectations to children when they structure the interactional context. This is the case, for example, when a parent asks siblings to play together quietly. Role socialization occurs when parents praise or reward children for competently enacting desired roles. Parents also informally socialize sibling roles by reprimanding or negatively consequating the children when parent role expectations are violated. These social exchanges occur during ongoing daily interactions. From these social encounters, siblings extract important information about the roles they are expected to perform and the contexts in which those role enactments are appropriate.

Role relationships between individuals differ in their degree of symmetry. When a child teaches or helps another, that child has assumed a dominant role, with a reciprocal, nondominant role being assumed by the other child (i.e., learner, helpee). The resulting role relationship is asymmetrical. Other role relationships are equalitarian in nature; neither child is dominant over the other (playmate). Sibling role relationships during childhood tend to be asymmetrical. Older brothers and sisters assume more powerful, dominant roles in relation to their younger siblings [Brody et al., 1982; Stoneman et al., 1984; Stoneman and Brody, 1993a]. With age, role relations between typically developing siblings become increasingly symmetrical [Cicirelli, 1982]. Farber [1960] posited that the presence of a child with mental retardation would create modifications in the developmental course of sibling role relationships. In sibling pairs where the younger siblings have mental retardation, Farber expected that role relationships would become less, rather than more symmetrical across the childhood years.

When the child with mental retardation is the older sibling, the younger nondisabled siblings will at some point "catch up" developmentally to their older sibling. As time passes, these younger siblings will advance ahead of their siblings with mental retardation, surpassing their level of cognitive functioning. Farber [1960] posited that this period of cognitive crossover would be paralleled by a crossover in sibling roles, in which the younger child would begin to assume role dominance over his or her older sibling with mental retardation. He also posited that this period of role crossover would be accompanied by sibling conflict and anxiety, as new role relationships are formed and the older child with mental retardation is forced to relinquish the preferred position of role dominance.

Interactional Roles

Interactional roles are the roles that children assume with each other during ongoing play and social interaction. Consistent with Farber's expectations, there are several observational studies documenting that sibling interactional role relationships are more asymmetrical when the younger child has a disability [Abramovitch et al., 1987; Stoneman et al., 1989; Dallas et al., 1993a; Caro and Derevensky, 1997]. Older typically developing siblings frequently help, teach, and manage their younger siblings with disabilities. As posited by Farber [1960], interactional roles between younger children with mental retardation and their older siblings have been found to become more asymmetrical across the childhood years [Stoneman et al., 1989]. Data from a study by Costigan et al. [1997] suggest that sibling role asymmetry may be less pronounced when the whole family interacts together and more pronounced when children with disabilities are alone with their siblings.

Role asymmetry is influenced by the skills and behavior of the sibling with a disability. During naturalistic family observations, children with mental retardation who had more advanced adaptive competencies had more symmetrical sibling role relationships [Stoneman et al., 1987]. In a Greek study, as level of physical disability increased among children with cerebral palsy, the directiveness of typically developing siblings increased and role symmetry decreased [Dallas et al., 1993a]. When the sibling with a disability ignores or resists the requests of the other [Stoneman et al., 1989; Brody et al., 1991], the ignored sibling seems to respond by becoming increasingly directive and by repeating requests, thereby increasing sibling role asymmetry.

Observational data have confirmed Farber's hypothesized role crossover. Interactions between children and their

older siblings with disabilities have been found to be characterized by younger sibling dominance, while comparable interactions between typically developing siblings follow a more normative pattern of older sibling dominance [Abramovitch et al., 1987; Brody et al., 1991; Dallas et al., 1993a]. Siblings of children with mental retardation report higher status/power relative to their siblings with disabilities, regardless of birth order [Purcell and Floyd, 1999]. The lower the adaptive competence of older siblings with mental retardation, and the greater the discrepancy in adaptive skills between these children and their younger, typically developing siblings, the greater is the observed sibling role asymmetry [Brody et al., 1991].

Although the role patterns between children with disabilities and their siblings are different than those between typically developing siblings, there is no evidence that the asymmetrical interactional roles experienced by these children are harmful, either to the individual siblings or to the sibling relationship. Siblings have reported being proud of their ability to "teach" younger siblings with autism [Bristol and Schopler, 1984]. Satisfaction with interpersonal relationships is, in part, a function of the ability of the participants to negotiate mutually acceptable roles and to enact those roles in a quality manner [Burr et al., 1979]. It appears that many siblings of children with disabilities successfully achieve mutually acceptable interactional role relationships, artfully crafted to fit their life contexts.

Ascribed Caregiving Roles

In addition to the interactional roles described above, parents assign formal roles to their children. Role prescription occurs when a parent or other source of social influence places one or more of the siblings in a specific social role. An example would be a parent who tells a sibling to help her sister put on her shoes. Another would be the parent who tells one sibling to babysit for the other while the parent is away from home. In these instances, the parent directly assigns a role to be enacted in a specific temporal and environmental context.

Farber [1960] and Farber and Jenne [1963] believed that mothers accommodate the demands placed on them by the care of a child with mental retardation by obtaining the assistance of their nondisabled daughters in childcare. Research has demonstrated that both older and younger siblings of children with disabilities assume expanded childcare roles as compared to their agemates [Schwirian, 1977; Gath and Gumley, 1987; Stoneman et al., 1988, 1991; McHale and Gamble, 1989; Wilson et al., 1989; Cuskelly and Gunn, 2000]. Expanded childcare roles disproportionately fall to sisters, although brothers also have some increase in childcare. For younger siblings, assuming ascribed caregiving roles (i.e., helping with feeding, babysitting) is quite dissimilar to the roles that are normative for younger siblings. When younger siblings are asked about their participation in caregiving roles for their older typically developing siblings, they often find the question absurd [Stoneman et al., 1991]. Younger siblings do not help feed or babysit their older siblings.

Although the role patterns between children with disabilities and their siblings are different than those between typically developing siblings, there is no evidence that the asymmetrical interactional roles experienced by these children are harmful, either to the individual siblings or to the sibling relationship.

When interviewed, many younger siblings find humor in this possibility. When the older sibling has a disability, however, such sibling role reversals are commonplace.

The effects of childcare responsibilities on children are not clear. Anthropologists suggest that sibling caregiving is widespread across cultures, with posited positive outcomes for the sibling caregivers [Weisner and Gallimore, 1977]. For those interested in siblings of children with disabilities, the view has been more pessimistic, with concern expressed for possible negative effects on siblings of increased childcare roles [Farber, 1960]. The research has not supported these concerns. McHale and Gamble [1989], for example, found that after family characteristics were controlled, sibling caregiving was not associated with negative sibling outcomes.

There is modest support for positive effects for sibling caregivers. Lobato et al. [1987] speculated that for sisters, defined childcare roles at an early age may provide "psychological resistance to problems of depression" (p. 337). Cuskelly et al. [1998] found that fathers rated boys as having fewer behavior problems and girls as having fewer externalizing behavior problems when they were more involved in providing care for their siblings with Down syndrome. For younger nondisabled siblings, greater childcare responsibilities have been associated with less sibling conflict [Stoneman et al., 1991]. Similarly, Cuskelly and Gunn [2000] found that siblings of children with Down syndrome who assumed more caregiving roles had sibling relationships that were of high quality. It is possible that parents may consider the affective quality of the sibling relationship when placing typically developing siblings in a variety of childcare roles, assigning these responsibilities only when siblings are able to interact with a minimum of conflict. It is also possible that engaging in expanded childcare roles holds some benefits for the sibling relationship.

Sibling caregiving for children with disabilities has been found to be greater in less affluent households and in families where mothers have less education [Stoneman et al., 1988; McHale and Gamble, 1989]. Grossman [1972] found that in lower income families, larger families were associated with better sibling coping. She suggested that larger families seemed to protect the siblings from excessive involvement in care since more siblings shared the care responsibilities. Some children with disabilities place heavier care demands on families than do others. As siblings with severe disabilities increase in age, sibling caregiving increases [Wilson et al., 1989]. Stoneman et al. [1988, 1991] found that sibling care responsibilities tended to be greater when the siblings with mental retardation had fewer adaptive and self-help skills.

There is some evidence that when the demands of childcare roles become too extreme, negative outcomes can result for individual siblings and for the sibling relationship. Gath and Gumley [1987] found that older siblings who assumed major childcare responsibilities were more likely to have behavior problems. This finding was especially pronounced in children with mental retardation resulting from causes other than Down syndrome. Similarly, Cuskelly et

al. [1998] reported an association between increased caregiving among sisters of children with Down syndrome and greater internalizing behavior problems such as anxiety and depression. Stoneman et al. [1988] found that older siblings with the most childcare responsibilities had increased conflict and decreased positive interaction with their siblings with mental retardation.

FAMILY CONTEXT OF SIBLING RELATIONSHIPS

Sibling relationships develop within the context of families. Families are comprised of complex relationships that mutually influence each other. Family systems theory [Broderick and Smith, 1979] has had a major impact on the way researchers approach the study of families. This theoretical perspective emphasizes the interconnectedness of family members, positing that when events impact one member of a family, all family members are changed in some way. This complex system of relationships is critical for understanding the development of siblings when one child has a disability [Stoneman, 1993, 1995; Stoneman and Brody, 1993b]. Marital dissatisfaction and parental conflict can compromise the quality of the sibling relationship [Brody et al., 1987b, 1994a,b; Case and Corley, 1991; Jenkins, 1992; Erel et al., 1998; Stocker and Youngbade, 1999]. Nixon and Cummings [1999] found that siblings of children with disabilities may be especially sensitive to family conflict, reporting more negative emotional reactions and a greater tendency to perceive personal involvement in the conflict than comparison siblings.

Research on the link between the family context and siblings has tended to focus on sibling mental health outcomes, rather than on the sibling relationship. Marital distress, parental stress, and interparental conflict have been associated with poorer adjustment [McHale et al., 1984], depression [Gold, 1993], lower self esteem [Dyson et al., 1989; Rodrigue et al., 1993], and more behavior problems [Dyson et al., 1989] in siblings of children with disabilities. In their study of siblings of children with Down syndrome, Gath and Gumley [1987] found that warm marriages protected the typically developing siblings from evidencing behavior problems. Fisman et al. [1996], however, failed to find a relationship between marital satisfaction and behavior problems among siblings of children with pervasive developmental disorder (PDD).

In families of typically developing children, the relationship between marital conflict and negative sibling behavior has been found to be mediated by the parent–child relationship. The quality of the sibling relationship is enhanced by maternal responsivity and positive parenting and compromised by maternal negativity [Bryant and Crockenberg, 1980; Brody et al., 1994b; Howe et al., 1997; Erel et al., 1998; Stocker and Youngblade, 1999]. A similar pattern might be expected in families of children with disabilities. Among siblings of children with disabilities, more negative behavior from mothers, such as anger and complaints, has been related to conflict between the siblings, as well as to sibling depression and anxiety [McHale and Gamble, 1989]. Maternal encouragement of sibling interaction and structuring of play between children with disabilities and their siblings, which are effective strategies in socializing sibling prosocial interactions, may be disrupted when the family climate is negative and conflicted [Dallas et al., 1993b]. There is a growing body of evidence suggesting an association between a negative family climate, compromised parenting, and problems in the sibling relationship. Additional research is needed to elucidate the nature of these systemic relationships in families of children with disabilities.

Sibling relationships develop within the context of families.

DIFFERENTIAL PARENTAL ATTENTION

Parents do not treat siblings in the same family identically. Differential parental attention refers to within family differences in parenting experienced by siblings, including the perceived favoritism of one sibling over the other. Differential treatment has been associated with negative sibling outcomes, both contemporaneously and longitudinally, including less sibling engagement [Brody et al., 1987a], greater competition [Stocker et al., 1989], and increased conflict [Stocker et al., 1989; Case and Corley, 1991; Brody et al., 1992a; Volling and Belsky, 1992]. For typically developing siblings, differential attention often implies parental favoritism. One instance where this is not true is the differential attention paid to younger siblings by virtue of developmental needs associated with their younger age. Younger siblings routinely receive more parent attention than older siblings without apparent harm to the sibling relationship [Bryant and Crockenberg, 1980; Brody et al., 1987a, 1992a,b; Stocker et al., 1989].

Researchers have begun to study differential attention in families of children with disabilities. Observational studies of preschool siblings have revealed that mothers direct more positives and directives [Corter et al., 1992] and more interactional behaviors [Lobato et al., 1991] toward children with disabilities than toward their typically developing siblings. Stoneman et al. [1987] and McHale and Pawletko [1992] found that parents paid a large amount of attention to children with disabilities during ongoing daily activities, creating increased levels of sibling differential treatment. Surprisingly, older typically developing siblings did not receive less attention than older siblings of similar ages in comparison families. Rather, there was some evidence in both studies that mothers gave older siblings of children with disabilities more attention than was afforded to older siblings in comparison families. Mothers seem to compensate for the increased time spent with the child with a disability by increasing (or at least not decreasing) the time that they spend with other children in the family. Carr [1973] reported that mothers of children with Down syndrome in her study consciously tried to balance the time that siblings received, gave them "extra love" from time to time, and talked with siblings about the need of the child with Down syndrome for extra parent attention.

The effects of parent differential attention on siblings is less clear in families with a child with a disability than in families of typically developing children. Corter et al. [1992] did not find a relationship between maternal differential treatment and the quality of interactions between young children with Down syndrome and their siblings. McHale and Gamble [1989] found dissatisfaction with differential treatment to be related to anxiety and depression for typically developing siblings of children with disabilities. The impact of differential treatment may be associated with the etiology of the child with a disability [Stoneman, 1998]. Wolf et al. [1998] found that differential attention to children with Down syndrome was associated with adjustment problems in typically developing siblings. For siblings of children with pervasive developmental disorder (PDD), the reverse was true. Typically develop-

ing siblings who believed themselves to be favored by parents had increased adjustment problems. No relationship was found between differential attention and the quality of the sibling relationship. McHale and Pawletko [1992] reported an even more complex set of findings associating differential treatment with sibling outcomes. The correlation patterns found in their study varied by sibling group, by type of differential treatment, and by whether the outcome was for the individual child or the sibling relationship.

Differential treatment may have distinctive meaning in families of children with disabilities. For these siblings, differential treatment may be interpreted not as parental favoritism, but as a justified parent response to the greater caretaking needs of the child with a disability [Stoneman, 1998]. In families where children believe differential treatment to be justified because of the needs of the favored sibling, it may not undermine the sibling relationship as it might in other families [Kowal and Kramer, 1997]. McHale and Pawletko [1992] suggested that children may respond to the "legitimacy" of differential treatment, causing sibling relations involving a child with a disability to be less vulnerable to differential treatment than sibling relations in comparison families. This is consistent with the finding by McHale and Gamble [1989] that although siblings of children with disabilities experienced greater differential attention from their mothers, to their disadvantage, there were no differences in satisfaction with maternal differential treatment between siblings of typical children and siblings of children with disabilities.

CONCLUDING COMMENTS

There has been a sharp increase in knowledge about siblings of children with disabilities in the past decade. Nonetheless, there is still much to learn. As is true for most newly developing research literatures, the research on sibling relationships is often contradictory and difficult to interpret. Unfortunately, only a limited number of researchers have directly attempted to empirically validate strategies that support siblings and help them develop positive, mutually satisfying relationships with each other. Intervention research focusing on the sibling relationship has primarily targeted strategies designed to increase the social engagement between the children. Most research has been conducted at a descriptive level, describing the nature of the sibling relationship when one child has a disability or identifying individual or family correlates of sibling relationship characteristics.

Substantial research effort has gone into comparing siblings of children with disabilities to typically developing comparison siblings in order to ascertain similarities and differences between sibling groups. These studies, however, have limited ability to provide proscriptive advice to parents and families. This research approach is methodologically difficult because of the numerous challenges involved in defining and recruiting appropriate comparison groups in family research [Stoneman, 1989]. Even when well-designed, these studies provide only the first step in understanding sibling relationships. Once is it ascertained that sibling relationships involving children with disabilities differ from those of typically developing siblings, what is to be concluded from those findings? The answer to this question is not always clear.

In years past, there has been a desire to change people with disabilities in an attempt to make them more similar to other people. Advocates with disabilities have communicated that they do not want to be changed or "fixed" [Judith Snow, cited in Forest and Pearpoint, 1992, p. 68]. Rather, they want to be accepted and appreciated for who they are. A similar philosophy can be applied to the relationships that people with disabilities have with other people, including their siblings. Research has shown that relationships between siblings when one child has a disability are not identical to the relationships that exist between typically developing siblings. Being different does not imply that these relationships are inferior, or that they need intervention. After many decades during which researchers and others believed that relationships involving children with disabilities must be pathological and unhealthy, it is important to guard against assuming that having a sibling relationship with distinctive, nontypical characteristics is necessarily problematic. Relationship differences can be adaptive and can allow love and friendship to develop in the face of the obstacles imposed by disability. As is the case with all sibling relationships, of course, factors such as extreme sibling disengagement or aggression may compromise the development of the sibling relationship and require intervention.

The question reflected in the title of this paper is "What can families do to enhance the development of positive, close sibling relationships between children with disabilities and their siblings?" The literature reviewed above provides clues to some of the factors that may enhance or compromise the quality of sibling relationships when one child has a disability. It also suggests a strong need for additional studies to clearly elucidate the steps that families can take to support and foster sibling relationships. ■

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